Remarks

The Applicant respectfully requests reconsideration of the present U.S. Patent application as amended herein. Claims 1, 2, 5, 8-10, and 15 have been amended. Claims 17-20 have been allowed. No claims have been added, cancelled, or withdrawn. Thus, claims 1-20 remain pending in the application.

Claim Objections

Claims 1-16, were objected to for a number of informalities related to antecedent basis. In response, the Applicant has amended claims 1, 5, and 9 to correct the informalities identified in the Office action. Thus, the Applicant respectfully submits that the informalities have been corrected and requests that the objections to claims 1-16 be withdrawn.

Claim Rejections § 112

Claims 2-3, 8, and 10-12, were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which describe embodiments of the Applicant's invention. In response, the Applicant has amended claims 2, 8, 9, and 10 to correct a number of informalities related to antecedent basis. The Applicant respectfully submits that the informalities have been corrected and requests that the rejection of claims 2-3, 8, and 10-12 be withdrawn.

Claim Rejections § 103

The Manual of Patent Examining Procedure ("MPEP"), in § 706.02(j), states:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second there must be a reasonable expectation of success. Finally, **the prior art reference** (or references when combined) **must teach or suggest all the claim limitations**. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be both found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

(Emphasis added). Thus, the MPEP and applicable case law require that the Office action establish that a combination of references teach or suggest **all of the claim limitations** of rejected claims to sustain an obviousness rejection under 35 U.S.C. § 103. As shown below, the Applicant respectfully submits that the Office action does not establish a *prima facie* case of obviousness.

Claims 1 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application No. 2002/0118683 (*Narayanna*) in view of U.S. Patent Application No. 2003/0035396 (*Haartsen*). The Applicant respectfully submits that claims 1 and 9 are patentable over *Narayanna* and *Haartsen* for at least the below-stated reasons.

Claims 1 recites:

> [a] method comprising:
>
> selecting a packet;
>
> determining a binary number corresponding to a priority of the selected packet, wherein the binary number comprises N digits;
>
> **contending for packet transmission, wherein a period of contention lasts N slot intervals.**

(Emphasis added). Claim 9 is an article of manufacture claim that similarly recites, "determining a binary number corresponding to a priority of the selected packet, wherein the binary number comprises N digits **... contending for packet transmission, wherein a period of contention lasts N slots intervals."**

Narayanna is generally directed to the scheduling of data packet transmissions. The Office action directs the Applicant's attention to paragraph 0053 and 0075-0079 of *Narayanna*. The cited paragraphs discuss a scheduler and the program flow for positioning packets within a data structure (the heap) associated with the scheduler. In particular, *Narayanna* states, "[e]ach position in the heap 700 may be expressed as, or converted to, a binary number." "The binary number may be used as a "roadmap" or guide for traversing the heap 700, starting from the topmost position P1 and ending at the position that corresponds to the binary number." The Office action states, and the Applicant agrees, that *Narayanna* does not teach or suggest "contending for packet transmission, wherein a period of contention lasts N slots intervals."

Regarding the claim elements directed to "contending for packet transmission, wherein a period of contention lasts N slots intervals," the Office action directs the Applicant's attention to paragraphs 0053 and 0056 of *Haartsen*. Paragraph 0053 of *Haartsen* is directed to staggering the priority slots of a channel so that time critical services can be multiplexed onto the channel. Paragraph 0056 briefly discusses "a contention problem wherein a priority slot of another service ... [occurs] while a packet transmission of the previous service is still in progress, or ... [occurs] at the same time of another priority slot." In particular, paragraph 0056 suggests that "the contention must be resolved by granting the right to the owner of the leading priority slot ... [and where]

priority slots coincide exactly, the contention may be resolved by giving the service originating from the lowest address to take precedence."

Paragraphs 0053 and 0056 do not, however, teach or suggest, "contending for packet transmission, wherein a period of contention lasts N slots intervals," as recited in claims 1 and 9. In fact, the cited passages of *Haartsen* do not suggest any relationship between the priority level of a packet and the length of the period of contention. Since neither *Narayanna* nor *Haartsen* teach or suggest "contending for packet transmission, wherein a period of contention lasts N slots intervals," no combination of *Narayanna* with *Haartsen* teaches or suggests the claim limitation. Thus, the Applicant respectfully submits that claims 1 and 9 are patentable over *Narayanna* in view of *Haartsen* for at least the reason that neither *Narayanna* nor *Haartsen* teach or suggest, contending for packet transmission, wherein a period of contention lasts N slots intervals."

Dependent claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over *Narayanna* and *Haartsen* in view of U.S. Patent No. 5,440,553 issued to Widjaja, et al. (*Widjaja*). Claim 5 depends from claim 1. For at least the reasons sets forth below, the Applicant submits that claim 5 is not rendered obvious by the combination of *Narayanna*, *Haartsen*, and *Widjaja*.

Widjaja is cited as teaching that "selecting a packet comprises selecting a highest priority packet that is ready to be transmitted." Whether or not *Widjaja* discloses the limitations cited by the Office action, it does not teach or suggest "contending for packet transmission, wherein a period of contention lasts N slots intervals," as recited in claim 1. Because each of *Narayanna*, *Haartsen*, and *Widjaja* fails to teach or suggest the above-cited claim limitations, no combination of *Narayanna*, *Haartsen*, and *Widjaja* teaches or

suggests the invention as claimed in 8. Thus, the Applicant respectfully submits that dependent claim 8 is not rendered obvious by the combination of *Narayanna*, *Haartsen*, and *Widjaja*.

Dependent claims 6 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Narayanna* and *Haartsen* in view of U.S. Patent No. 6,791,990 issued to *Collins*, et al. (*Collins*). Claims 6 and 13 respectively depend from claims 1 and 9. For at least the reasons sets forth below, the Applicant submits that claims 6 and 13 are not rendered obvious by the combination of *Narayanna*, *Haartsen*, and *Collins*.

Collins is cited as teaching that "determining the binary number corresponding to the priority of the selected packet comprises determining a two digit binary number." Whether or not *Collins* discloses the limitations cited by the Office action, it does not teach or suggest "contending for packet transmission, wherein a period of contention lasts N slots intervals," as recited in claims 1 and 9. Because each of *Narayanna*, *Haartsen*, and *Collins* fails to teach or suggest the above-cited claim limitations, no combination of *Narayanna*, *Haartsen*, and *Collins* teaches or suggests the invention as recited in claims 1 and 9. Thus, the Applicant respectfully submits that dependent claims 6 and 13 are not rendered obvious by the combination of *Narayanna*, *Haartsen*, and *Collins*.

Dependent claim 7 was rejected under 35 U.S.C. § 103(a) as being unpatentable over *Narayanna* and *Haartsen* in view of U.S. Patent No. 4,470,112 issued to Dimmick (*Dimmick*). Claim 7 depends from independent claim 1. For at least the reasons sets forth below, the Applicant submits that claim 7 is not rendered obvious by the combination of *Narayanna*, *Haartsen*, and *Dimmick*.

Dimmick is cited as teaching that "determining the binary number corresponding to the priority of the selected packet comprises determining a three digit binary number." Whether or not *Dimmick* discloses the limitations cited by the Office action, it does not teach or suggest "contending for packet transmission, wherein a period of contention lasts N slots intervals," as recited in claim 1. Because each of *Narayanna*, *Haartsen*, and *Dimmick* fails to teach or suggest the above-cited claim limitations, no combination of *Narayanna*, *Haartsen*, and *Dimmick* teaches or suggests the invention as recited in claim 7. Thus, the Applicant respectfully submits that dependent claim 7 is not rendered obvious by the combination of *Narayanna*, *Haartsen*, and *Dimmick*.

Conclusion

The Examiner is respectfully requested to contact the undersigned by telephone if such contact would further the examination of the present application.

Respectfully submitted,

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